MULTIPLE FLOATING GUARD RING EDGE TERMINATION FOR SILICON CARBIDE DEVICES AND METHODS OF FABRICATING SILICON CARBIDE DEVICES INCORPORATING SAME

Abstract of the Disclosure

Edge termination for silicon carbide devices has a plurality of concentric floating guard rings in a silicon carbide layer that are adjacent and spaced apart from a silicon carbide-based semiconductor junction. An insulating layer, such as an oxide, is provided on the floating guard rings and a silicon carbide surface charge compensation region is provided between the floating guard rings and is adjacent the insulating layer. Methods of fabricating such edge termination are also provided.